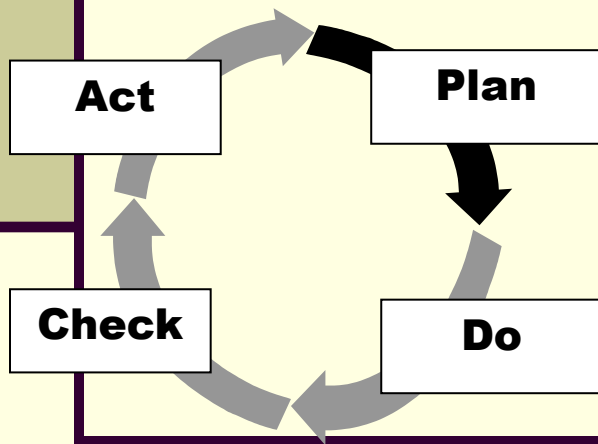# Welcome to
INTRODUCTION TO PROCESS IMPROVEMENT

Act

Plan

Check

Do

Presented by:
Dan Druliner
David Wright
Doug Merrill
Jeanne Semura
Ray Hsu

Learning Objectives

- Learn the definition of "Process Improvement (PI)"

- Know what key activities occur in each step of the *PDCA Cycle*

- Use at least 4 PI tools

- Practice *PDCA* in a team setting

Introductions
QI Awareness Alive!

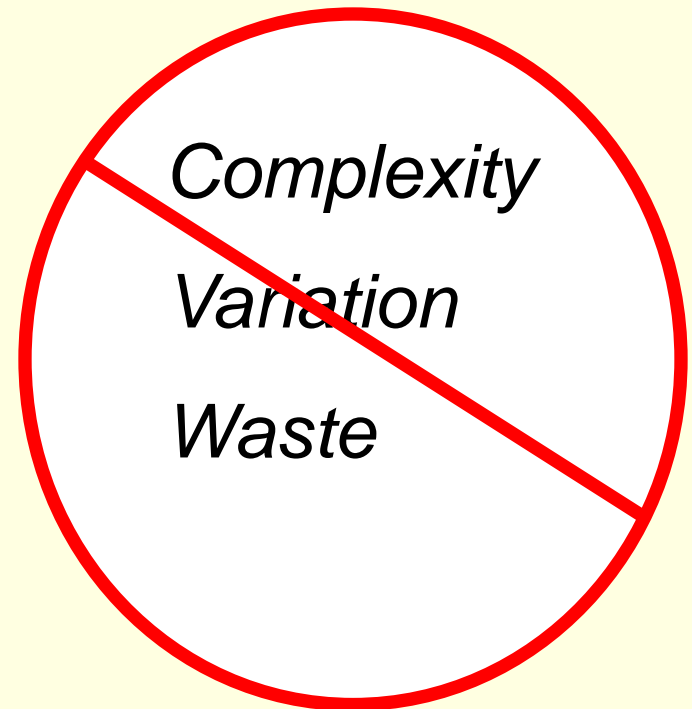**Ice Breaker**

- Select one of the "commitment to Quality Improvement" that you have experienced

- Introductions
  - Name, Role, How long in your job?
  - Which element of QI have you experienced?

Three Goals
of Process Improvement
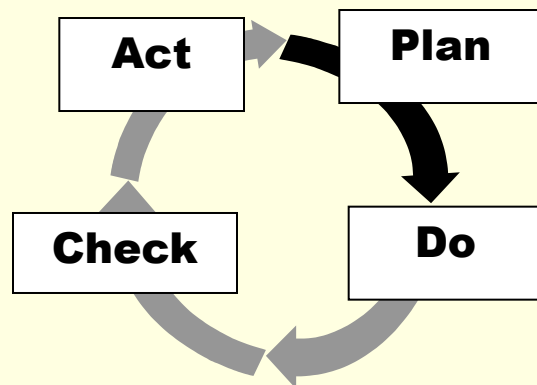
- Reduce Complexity

- Reduce Variation

- Eliminate Waste

Complexity

Variation

Waste

What do we need to begin?

1. Process Improvement Mindset

```
  Act  →  Plan
   ↑        ↓
 Check  ←  Do
```

2. An Approach

3. A Tool Kit

1. Process Improvement Mindset

Think Differently

- Critical Thinking
- Problem Solving with Data
- What adds value to your customer
- You Make the Difference

1. Mindset
F2 Framework for Improvement

- Quality Improvement (QI) Pyramid
- Finance & Facilities (F2) Strategy Map
- F2 Nine Quality Improvement Principles
- Process Improvement
- Project Management
  - Small Teams
  - Cross Functional Teams
  - University Wide Teams

1. Mindset
Quality Improvement Pyramid

Extraordinary Leader

1. Displays High Integrity and Honesty
2. Technical and Professional Expertise
3. Solves Problems and Analyzes Issues
4. Innovates
5. Practices Self-Development
6. Drives for Results
7. Establishes Stretch Goals
8. Takes Initiative
9. Communicates Powerfully & Prolifically
10. Inspires and Motivates Others to High Performance
11. Builds Relationships
12. Develops Others
13. Collaboration and Teamwork
14. Develops Strategic Perspective
15. Champions Change
16. Connects the Group to the Outside
17. Customer Focus

WSQA and Baldrige Award

1. Leadership
2. Strategic Planning
3. Customer & Market Focus
4. Measurement, Analysis and Knowledge Management
5. Workforce Focus
6. Process Management
7. Results

Vision

Efficient Processes

Strategic Plans

Leaders
Trustworthy
Trusting of Others
Approachable, Inspiring

Staff
Trustworthy
Trusting of Others
Collaborative, Committed

Quality Improvement System

Trained Staff	*Recognition*	*Data Analysis*
Customer Focus	*Empowered Staff*	*Problem Solving*
Teamwork	*Quality Processes*	*Measurement Systems*

1. Mindset
Quality Principles and the F2 Strategy Map
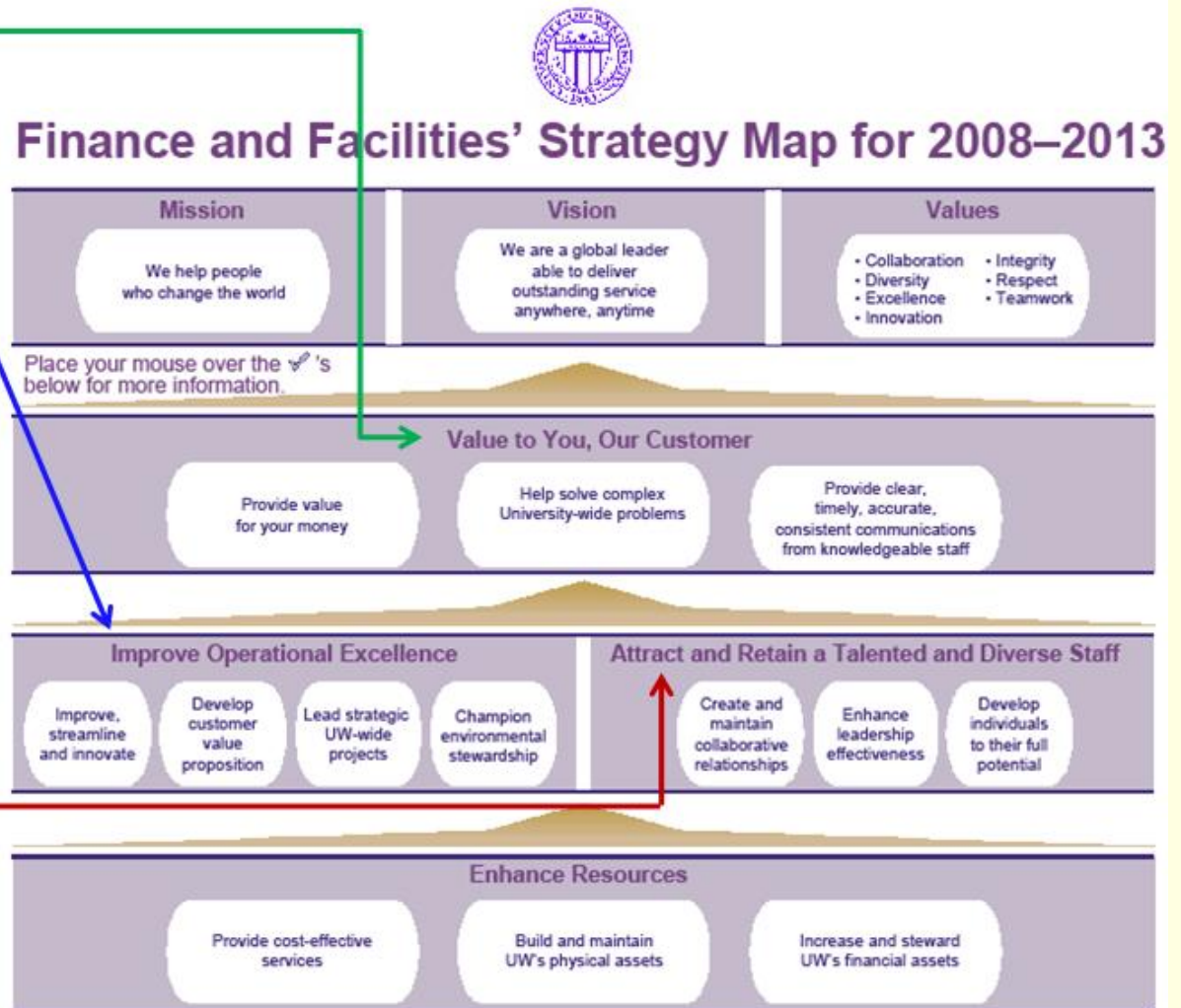
What are the goals?
1. Customer Focus
2. Continuous Improvement

How is it done?
3. Quality Definition
4. Work Process Focus
5. Prevention
6. Error-Free Attitude
7. Manage by Facts

Who does it?
8. Empowerment
9. Total Involvement

Finance and Facilities' Strategy Map for 2008–2013

Mission
We help people who change the world

Vision
We are a global leader able to deliver outstanding service anywhere, anytime

Values
- Collaboration
- Diversity
- Excellence
- Innovation
- Integrity
- Respect
- Teamwork

Place your mouse over the ✔'s below for more information.

Value to You, Our Customer
- Provide value for your money
- Help solve complex University-wide problems
- Provide clear, timely, accurate, consistent communications from knowledgeable staff

Improve Operational Excellence
- Improve, streamline and innovate
- Develop customer value proposition
- Lead strategic UW-wide projects
- Champion environmental stewardship

Attract and Retain a Talented and Diverse Staff
- Create and maintain collaborative relationships
- Enhance leadership effectiveness
- Develop individuals to their full potential

Enhance Resources
- Provide cost-effective services
- Build and maintain UW's physical assets
- Increase and steward UW's financial assets

Adopted, March 25, 2008

1. Mindset
F2 Nine Quality Improvement Principles

1. Customer Focus
2. Continuous improvement
3. Quality Definition
4. Work Process Focus
5. Prevention
6. Error-free Attitude
7. Manage by Facts
8. Empowerment
9. Total Involvement

Quality Principles
Customer Focus

Who is the Customer?

The customer is the individual or organization receiving your services.

Internal or External

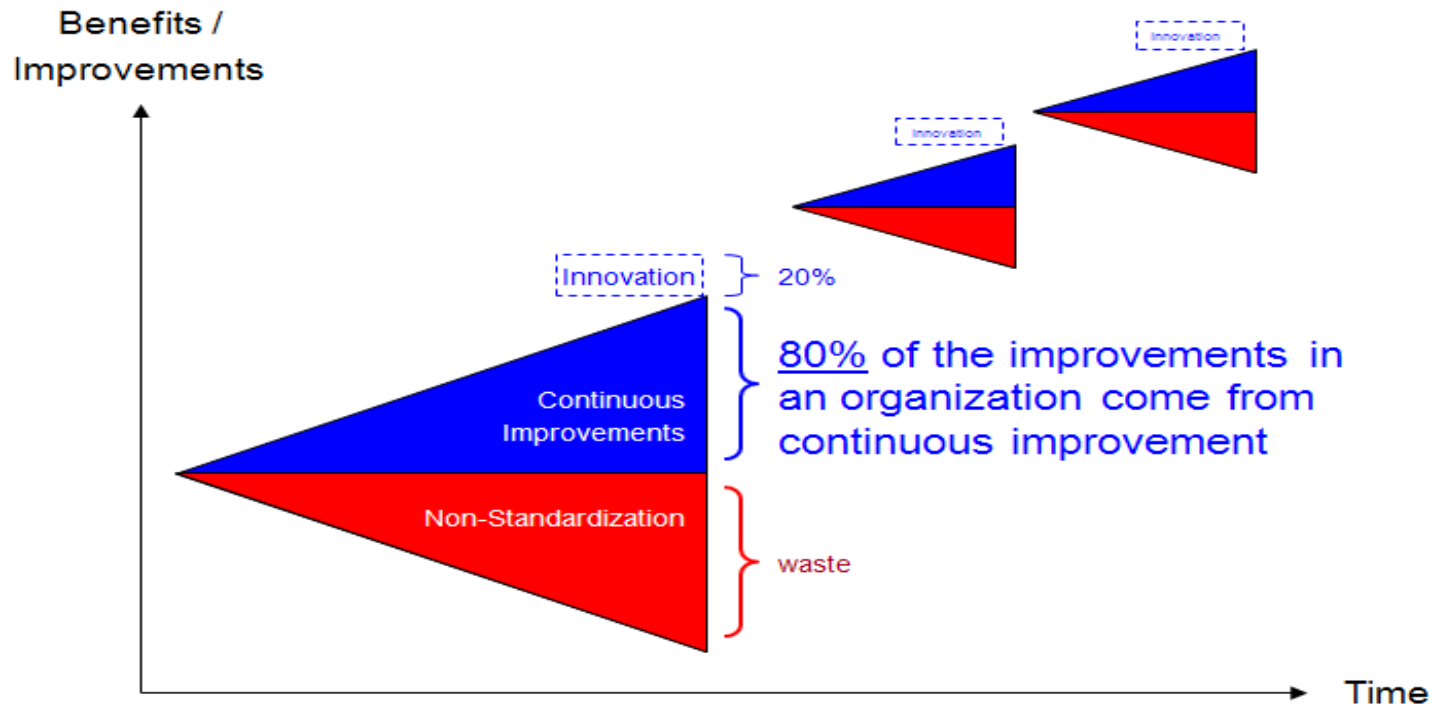Who are UW customers?
1. Research Faculty?
2. Students?
3. ?

What do you need to know about the Customer?

★ Customer expectations must be clearly understood and met.

★ Anything that does not add value to the customer is waste.

★ Customer / supplier partnerships must be developed at every level.

Quality Principles
Continuous Improvement

Continuous improvement is the constant, gradual and incremental improvements of operations

Benefits / Improvements

Innovation

20%

Continuous Improvements

80% of the improvements in an organization come from continuous improvement

Non-Standardization

waste

Innovation

Innovation

Time

Quality Principles
Error-free Attitude

" I will make a constant, conscious effort to satisfy my internal and external customers "

What does it mean to our customer if our processes are right 95% of the time.

Example: Customer can potentially experience 15% variance

95% - Vendor

95% - Buyer

95% - Dept. Admin.

2. An Approach
Plan - Do - Check - Act Improvement Cycle

Act
Widely Implement Solutions

Plan
Identify & Analyze the Problem

Check
Test the Solutions

Do
Develop & Implement Solutions
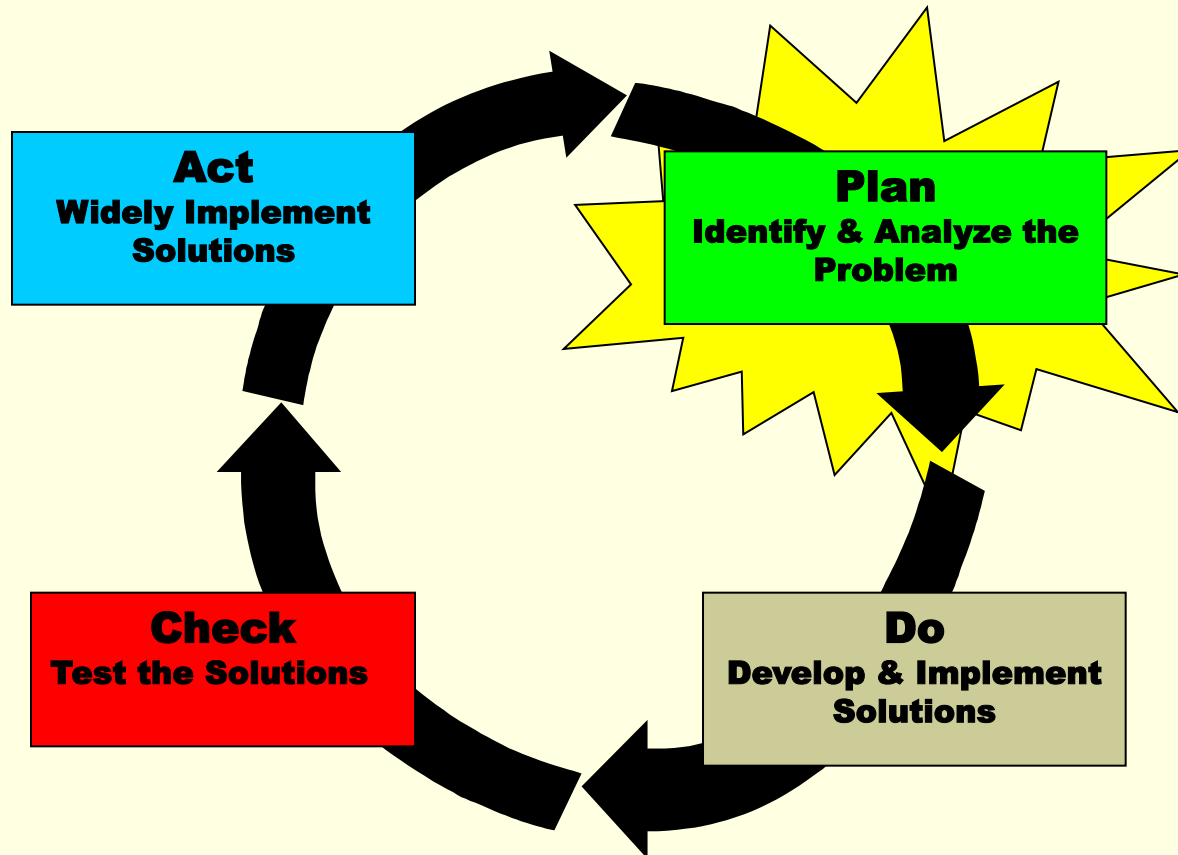
2. An Approach
PDCA: Plan, Do, Check, Act

A
C
P
D
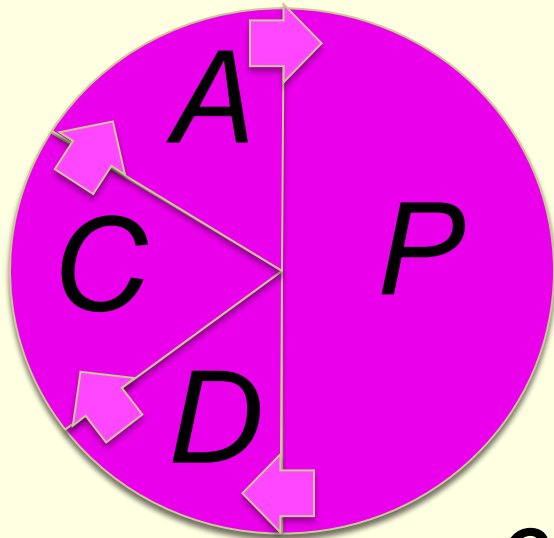
PLAN

What is customer saying needs to be improved (Listen to the VOC)

Well begun is half done.

What are you trying to accomplish (Identify objectives)

DO

Identify key team members

Test solution

How will I know if a change is an improvement (Identify measures)

CHECK *the results*

Accept

Identify causes

Alter

ACT *on results*

(Implement or revisit plan. If altered, revisit plan)

Abandon

What change do you plan to make (Identify potential solution)

Periodically measure

Communicate and celebrate

Plan test

Review / Next Steps

Review

Reduce Complexity, Variation & Waste

Three requirements: Mindset, Approach Toolkit

Nine Quality-improvement Principals

PDCA Approach

Next Steps

Birth of a project

Spin & Marty case study

Brainstorming & Green-Lighting

Teams

Affinity Diagram

Plan
Birth of a F2 Improvement Project

- Problems with a process becomes evident
- Process Owner shares and requests staff input
- Staff & Process Owner reviews existing <u>baseline</u> data
  - What data already exist?
    - Cycle Times?
      - Late deliveries, etc.
    - Phone or email data?
      - Areas of inquiry
    - Customer surveys?

Plan
3. A Tool Kit – Generating ideas

Tools you can use:

- Brainstorming & Green-lighting
  - A group exercise to generate ideas
- What questions does the data raise?
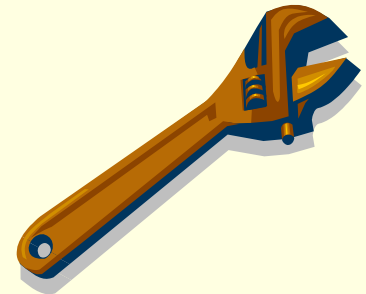
Case Study: Spin & Marty

Overview of the Spin and Marty Story

- Class participants are consultants for Spin & Marty
- Review minutes late data
- Identify team roles
    - Executive Sponsor – Jeanne Semura
    - Project Sponsor – Designated class faculty
    - Team Leader – Each table to designate
    - Scribe – Each table to designate
    - Team Members – Each table to designate

Note: At the end of the class the consulting contract will be awarded to one of the teams.

Exercise
3. A Tool Kit – Generating ideas

F2 Operations Team Exercise

- Brainstorming
  - Using Number of Minutes Late, Menu & store layout data
  - Use post-it notes

Plan
Selecting a Process to Improve

Factors to Consider

- Alignment with higher goals and objectives

- Complexity of the problem

- Impact of the Problem

- Measurability

- No one else is working on the problem

Plan
Selecting a Process to Improve

Constraints to Consider

- The PM "triple-constraint"

  Scope / Quality

  Resources

  Time
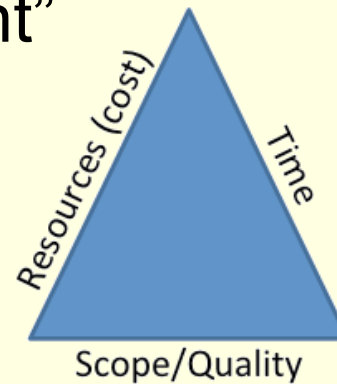
- Problem Type - *Control or Influence?*

  Type 1: Control: Within your control

  Type 2: Influence: Influence but no control

  Type 3: Neither control nor influence

Plan
Birth of a F2 Improvement Project

Creating a Process Improvement Team

- Present initial problem statement to Sponsor with supporting data

- Process Owner and Sponsor begin development of charter

- Team Members identified to match scope of project

Plan
Birth of a F2 Improvement Project

Creating a Process Improvement Team

- Types of teams
  - Crisis / Task / Process Improvement
- Team Size
  - 5-7
- Team Sponsor
- Team Leader
  - Process owner
- Team Members
  - Customers
- Facilitator (optional but important)

Plan
Birth of a F2 Improvement Project

Creating a Process Improvement Team

- Initial Team Meeting
  - Review & finalize Charter
    - Identify Customers
    - Identify Stakeholders
    - Develop plan to understand the customer requirements
      - Begin "As Is" process map
      - Define & review communications plan

Plan

3. Toolkit - Developing a Charter

Charter Components:

- Problem Statement
- Goal Statement
- Business Case
- Scope
- Project Sponsor(s) and Team Members
- Major Customers and Stakeholders
- Project Timeline
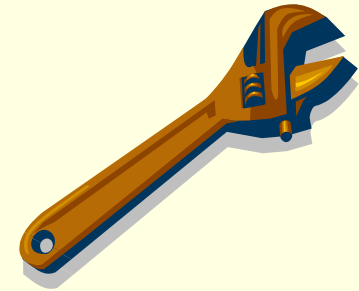
Plan

3. Toolkit - Organizing Ideas or Activities

Affinity Diagram

- A tool used to organize related ideas or activities. Examples include:
  - Group together similar issue in the problem assessment phase
  - Group similar ideas from a brainstorming activities
  - Group common activities related to implementing solutions.
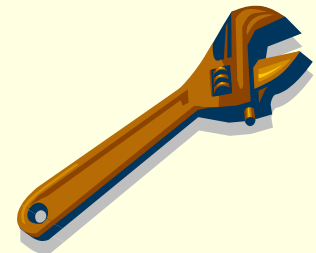
Exercise – 10 Minutes
Case Study: Spin & Marty

Use the Affinity Diagram to group related ideas

- As a team use the Brainstorming or Greenlighting data compiled by the F2 operational team
  - Brainstorm or Greenlight to expand upon the original data

Consultant Team Roles & Responsibilities

- Team Leader
- Scribe
- Take turns presenting work

Always use flip charts, and be prepared to present your work.

Review / Next Steps

Review

    Birth of a project

    Spin & Marty case study

    Brainstorming & Green-Lighting

    Teams

    Affinity Diagram

Next Steps

    Problem Statement

    Measurable Goals

    Communication Plan

    Bubble Chart

Plan
3. Toolkit - Developing a Charter

- Problem Statement that includes a data statement

- Project Goal or Objective

- Communications Plan

Identify & select process → Charter → Improve process
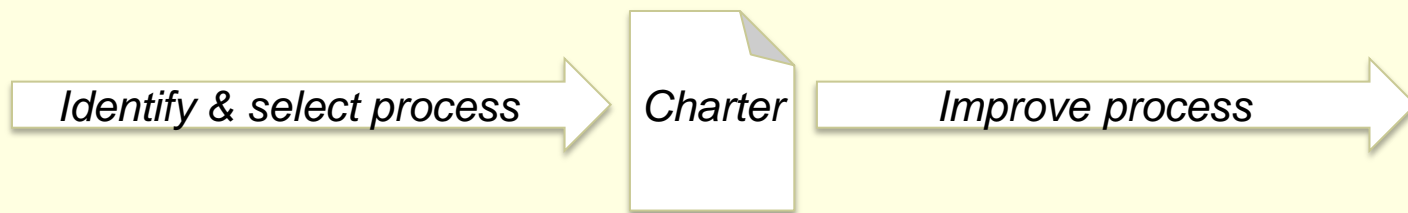
Plan
Charter - An Effective Problem Statement

An Effective Problem Statement includes:

Effect: States the effect (not the cause)

Gap: States the gap between current and desired state

Specific: Clear facts

Measurable: Quantifiable and measurement of progress.

Plan
Charter - An Effective Problem Statement

Problem Statement - Tips

- **Focus on the Pain**

- **Avoid:**

  - "Lack of"

  - "Due to"

  - "Results in"

    ……..if they imply a cause or a solution

Exercise
Case Study – Problem Statement

Problem Statements – 5 minutes

- Review handout example of problem statements

- Assign teams problems statements to review / discuss.

- Teams report out.

Exercise
Case Study – Draft a Problem Statement

Problem Statement – 15 minutes

- Each team draft a Spin and Marty case study problem statement based upon the brainstorming exercise to identify potential process improvements.

- Team report out

Plan
Examples of Measurable Goals

- Reduce time to pay manual invoices from 12 days to 6 days by XX date
- Reduce wait time for customers to speak to a representative from 2 minutes to 30 seconds by XX date
- Increase percent of staff satisfied with training from 50% to 90% by XX date
- Increase UW's Endowment by 5% for XX year by XX date
- Reduce 50% of the errors from the current performance level by XX date

Exercise
Case Study – Draft a Goal Statement

Team exercise – 5 minutes

- Write a goal statement based upon the problem statement your team identified from the Spin and Marty case study.

- Team report out

Plan
Charter - Create a Communication Plan

Communication Plan

The value of the awareness and opportunity for feedback on your process improvement project will directly impact the acceptance of change and the success of your overall solution.

Plan
3. Toolkit - Identifying Stakeholders

Show a bubble chart to highlight need for communications plan and identifying / value of stakeholders.

FM sponsor
FMEIT

Executive Sponsor
F2 / STEAM

FM initiative owners
Kathy Hoggan
David Wright

F2 sponsor
Ruth Johnston

core team
Dan Druliner, OSM – Web Manager
Nigel Heinsius, C2 – Technical Lead
C2 web staff– Production Support
F2 Web Developers – Content Development
John Linse – C2 Graphic / UX Designer
Dustin Brewer, FS – Technical Advisor
Elise Davis, OSM - Consultant

Partners
UW Marketing
Web Council

sub teams
content review
Testing (UX, access, code)
analytics, search

customers
Administrative Staff
Schools / Colleges
Students

Plan
Charter - Create a Communication Plan

- Identify Customers and Key Stakeholders
  - What questions does the team want to ask?
  - Provide opportunity for general input / feedback

*Communication Planning Tool -*Tool Kit

Who	Purpose or Questions to Ask	Responsibility / Complete By	Dates / Milestones	Summary
Stakeholder	Awareness, Data Needs, Get Feedback / Input	Team Member / by XX date	Data Analysis, Identify Solution, Piloting etc.	Priorities/ Concerns
Customer	Identify Requirements or What is Important	Team Member / by XX date	Identify Solution, Results of Pilot, Final Rollout	Customer Requirements

Review / Next Steps

Review

    Problem Statement

    Measurable Goals

    Communication Plan

    Bubble Chart

Next Steps

    What is a process

    Scope / Boundaries

    Create & Validate Flowcharts

    Analyze Flowcharts

Planning for Improvement
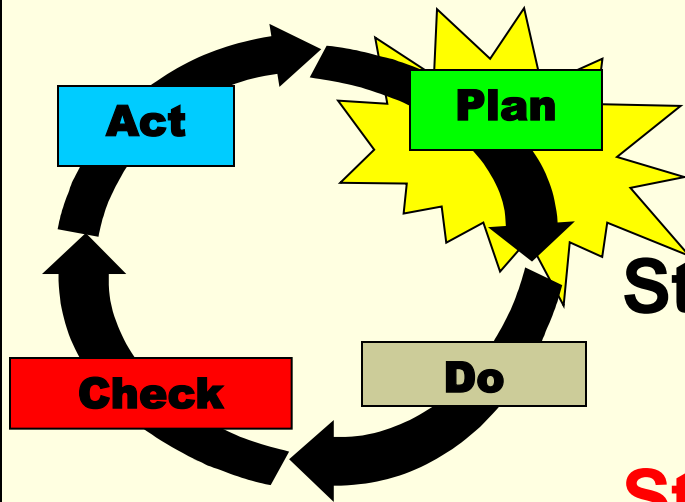
Act

Plan

Check

Do

Step 1 Select a process & form a team

Step 2 **Understand the current process**

Step 3 Collect & analyze baseline data
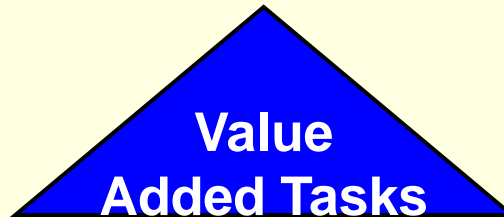
Step 4 Determine root causes

Plan
What is a Process?

INPUT	Value Added Tasks	OUTPUT
A resource that you will <u>add value to</u>:	**TRANSFORMING input to a desired output**	**An input after you have added value**

• Materials • Goods • Supplies • Resources • Physical • Non-physical • Data • Event	• Manufacturing • Service • Physical • Non-Physical	• End product • Service • Performance • Physical • Non-Physical

Plan
Step 2: Understand the Current Process

Clearly Define the Process Boundaries

- Beginning and End Points

- Identify Suppliers and Customers

supplier   input   process   output   customer   req's
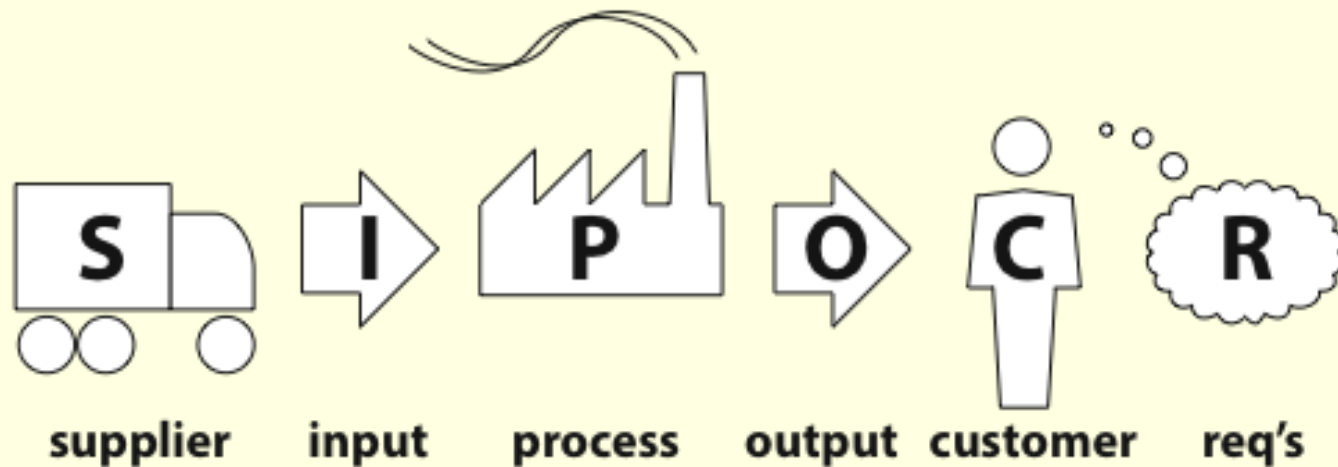
Group Exercise
Step 2: Understand the Current Process

Determining Process Boundaries

- What are some high-level processes in the Spin and Marty situation?

- Which of these processes will you need to look at as part of your improvement effort?

Plan
Understanding Customer Expectations

Customer Requirements Overview

- Customer Identification
- Collection of customer requirements
- Team review of customer requirements
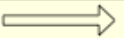- Process improvement aligns with the customer requirements

Plan
Step 2 – Flowchart As-Is Process
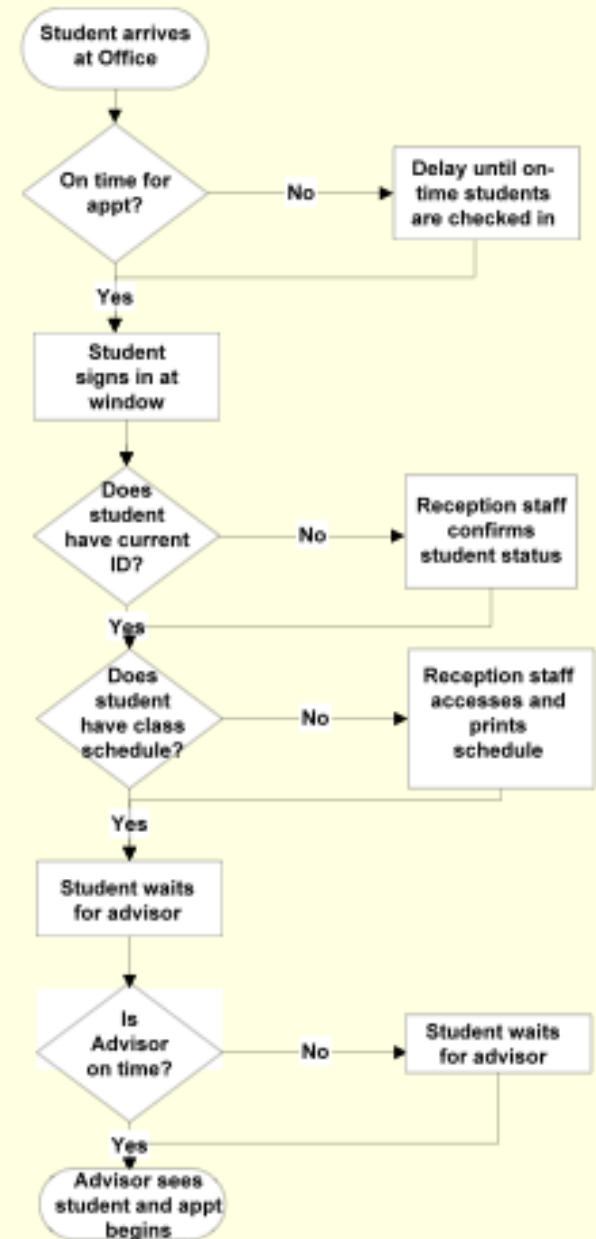
- Begin by documenting the current process
- Types of Flowcharts (Tool Kit)
    - Straight-line (Horizontal or Vertical)
    - Top Down (High Level)
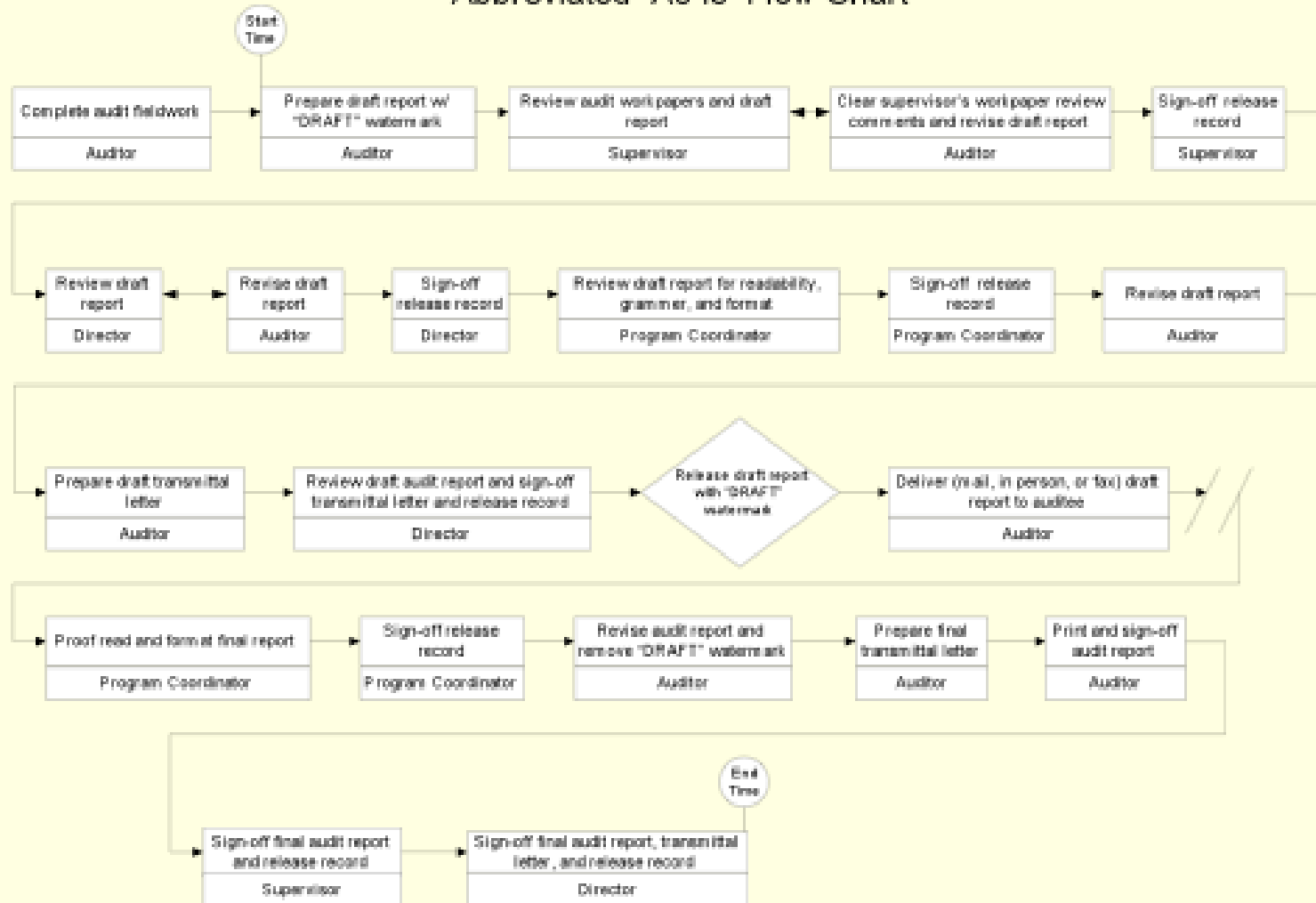   - Departmental or Cross Functional

Sample Flowcharts and Symbols

SYMBOL	REPRESENTS	EXAMPLE
(rounded rectangle)	Beginning or Ending point	Receive complaint / Complete process
(diamond)	Decision Point	Yes / No Pass / Fail
(rectangle)	Activity	Hold a meeting Make a phone call
(document shape)	Document	Report is completed Form is filled out
(circle)	Connector	Go to another page or another part of the flowchart
(arrow)	Flow	Move from one activity to next

Student arrives at Office

On time for appt? — No → Delay until on-time students are checked in

Yes

Student signs in at window

Does student have current ID? — No → Reception staff confirms student status

Yes

Does student have class schedule? — No → Reception staff accesses and prints schedule

Yes

Student waits for advisor

Is Advisor on time? — No → Student waits for advisor

Yes

Advisor sees student and appt begins

Sample Flowcharts

Internal Audit –
Abbreviated "As-Is" Flow Chart

Sample Flowcharts – Top Down

Plan the Report	→	Organize the Report	→	Write the Report	→	Produce the Report

Clarify purpose & objectives of report	Identify main themes or sections	Write report	Design layout
Identify elements needed	Decide order to discuss topics	Edit for flow, completeness	Print sample
Identify participants & determine roles	Collect all pertinent info	Refine text	Proofread and correct
		Incorporate charts & graphs	Photocopy or print final report
		Edit copy for errors, typos, etc	

Sample Flowcharts – Swim Lane
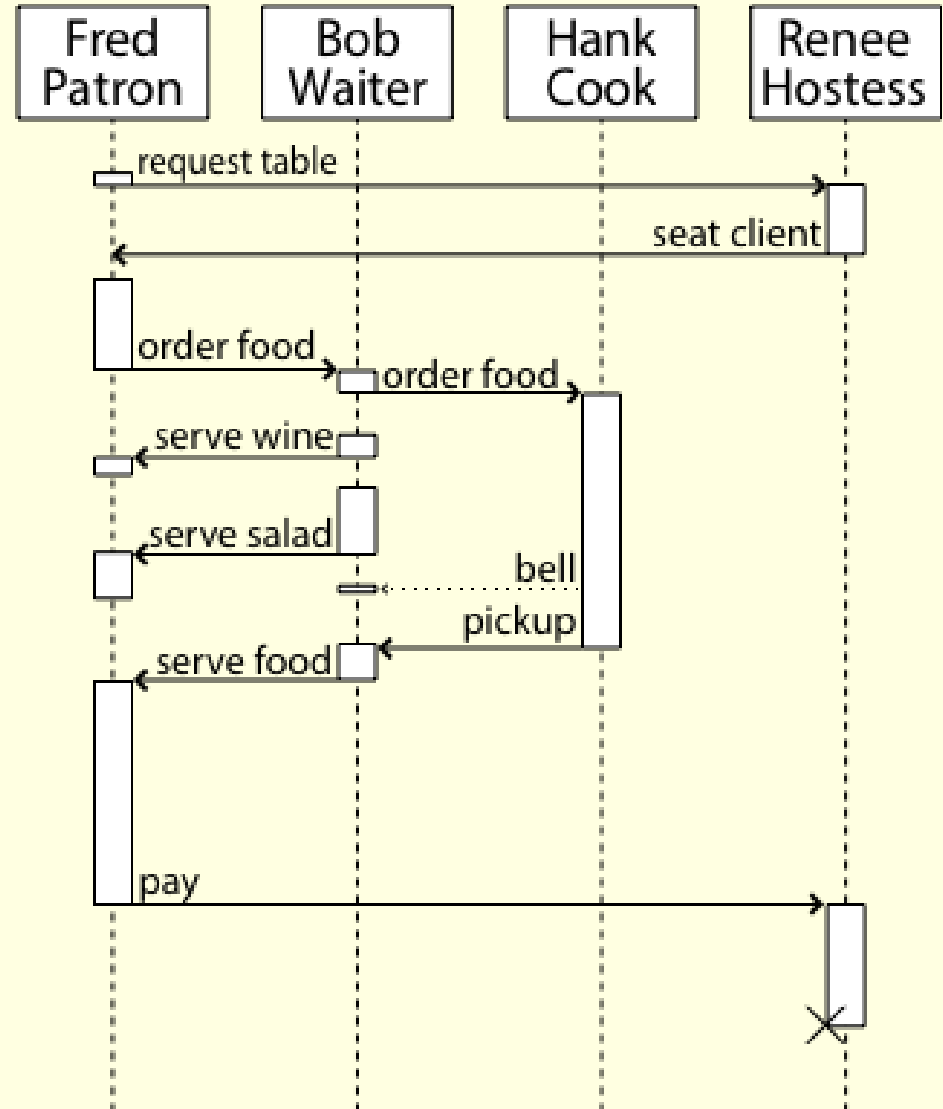
Exercise
Case Study – Create "As Is" Process Map

"As Is" Process Map - 20 minutes

■ Each team needs to create a "As Is" process map that details each step in the Spin and Marty process as defined by their problem statement.

Plan
Validate the "As Is" Process Map

Validation of "AS IS" process map

Must Include:

The Three 'Actuals'

- Go to the <u>actual place</u>
- Talk to the <u>actual people</u>
- Walk the <u>actual process</u>

Validates work or assumptions

Plan
Step 2: Understand the Current Process

- **Analyze the Flowchart**

  - Direction of the work flow

  - Value-added steps?

  - Complexity

  - Variation

  - Cycle Time

Can we eliminate waste?

Review / Next Steps

Review

    What is a process

    Scope / Boundaries

    Create & Validate Flowcharts

    Analyze Flowcharts

Next Steps

    Collect & Analyze Baseline Data

    Check Sheets

    Surveys, Run Charts, Pareto Graph

    Root Causes 5 whys, Cause & Effect

    Waste & Value Added

Plan
Step 3: Collect and Analyze Baseline Data
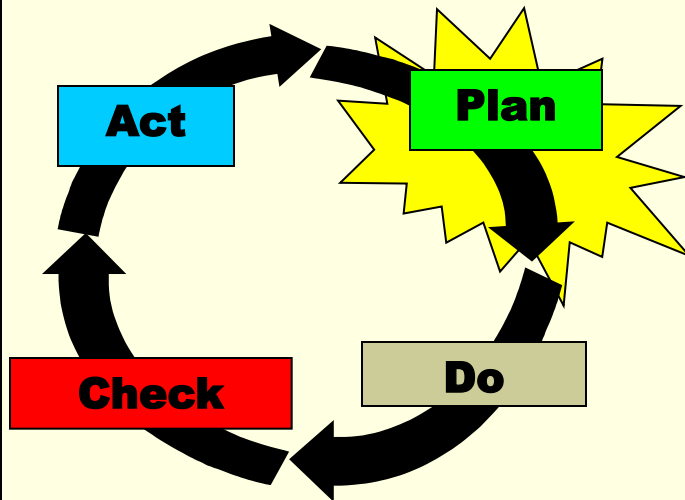
Step 1 Select a process & form a team

Step 2 Understand current process

Step 3 Collect & analyze baseline data

Step 4 Determine root causes

Plan
Step 3: Collect and Analyze Data

Data Collection Questions:

- What data already exists?

- What needs to be collected?

  - If more data is needed, who and how will collect the data?

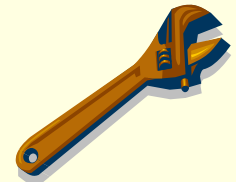 - How do you ensure that data is collected consistently?

Plan
Step 3: Collect and Analyze Data

Check sheets

Used to collect data about "How often are certain events occurring?

Problem: Complaints about coffee

Date	*Cold*	**Bitter**	**Weak**
3/1/09 am			
3/1/09 pm			
3/2/09 am			
3/2/09 pm			

Plan
Step 3: Collect and Analyze Data

Surveys

- Used to collect data about the knowledge, experience, and opinions of a targeted group of people

Group Discussion
Additional Data Needed ?

Data Collection

- What other types of data would you need for the Spin and Marty case study?

Exercise
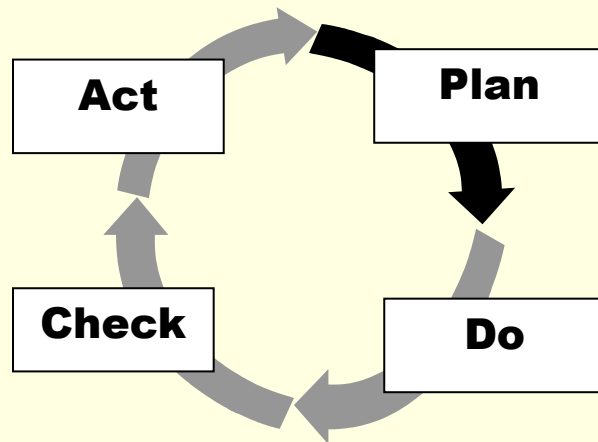## Analyzing Additional Data

Spin and Marty Case Study

- Additional Data
  - Survey results on customer complaints
  - Revenue breakdown
  - Take out orders information
- Team Exercise – 25 minutes
  - Review / discussion of new data
    Does your problem or goal statement need to be updated?

WELCOME BACK

Introduction to Process Improvement – Day 2

Act

Plan

Check

Do

Presented by:
Dan Druliner
David Wright
Doug Merrill
Jeanne Semura
Ray Hsu

Yesterday / Today

Review

    QI in F2, 9 principles, 3 things to begin, PDCA

    Birth of a Project: brainstorming, teams

    Documentation: charter, problem, goal, bubble

    Scope / Boundaries, Analyze Current Process

Next Steps

    More tools: Run Chart, Pareto, root cause, 5 whys

    Waste & Value Added

    Decision / Solution Matrix, Multi-voting, Green-Lighting
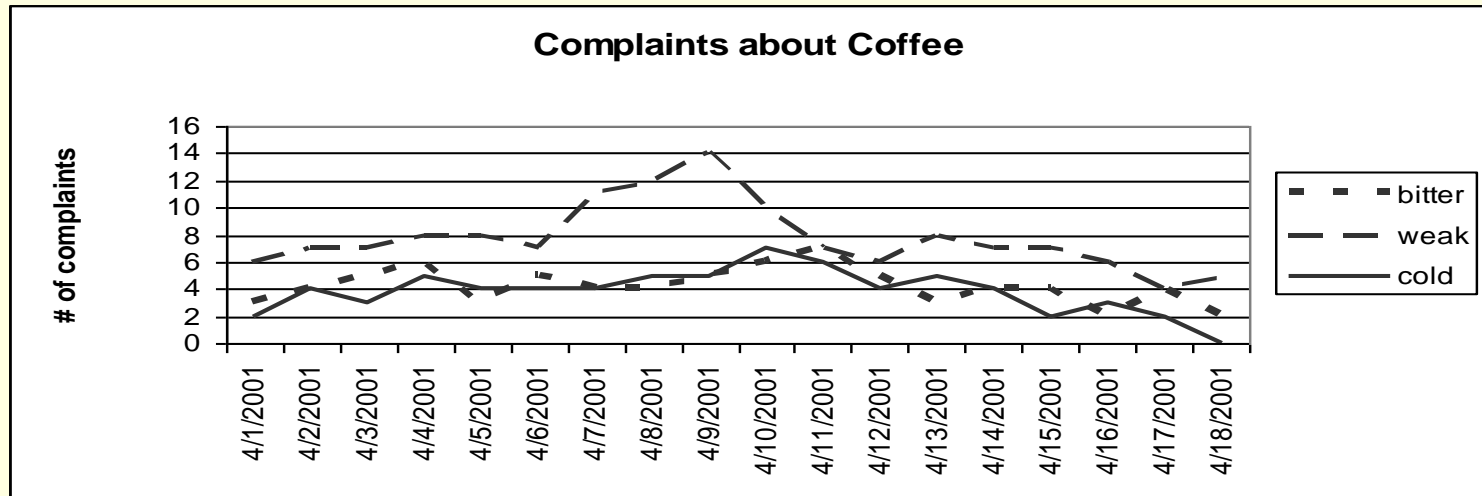
    Final Presentation to Sponsor

    Just do it

Plan

Step 3: Collect and Analyze Baseline Data

Run Charts, sometimes referred to as trend charts, are used to visually represent data over time. This is a common tool used in analyzing baseline or root cause data, to determine which possible causes are most prevalent over time.
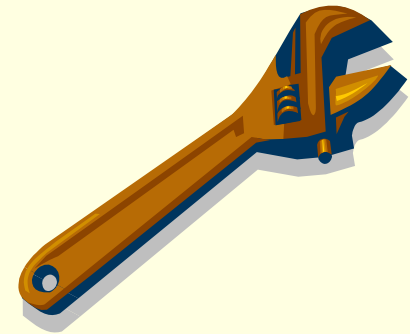
Complaints about Coffee

Plan - **Step 3: Collect and Analyze Data Tool to Prioritize Problems to Solve**

Pareto Graph

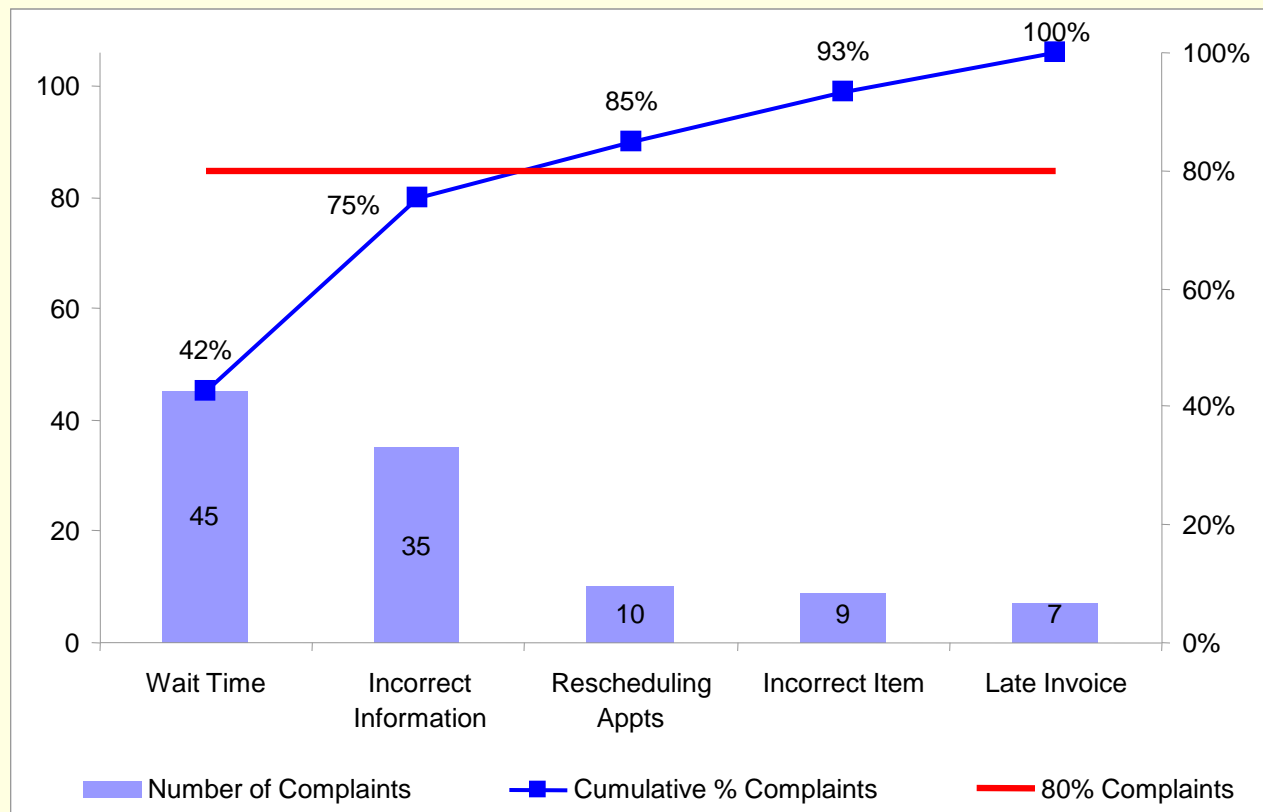- A special form of vertical bar graph which helps to determine which problems to solve in what order.
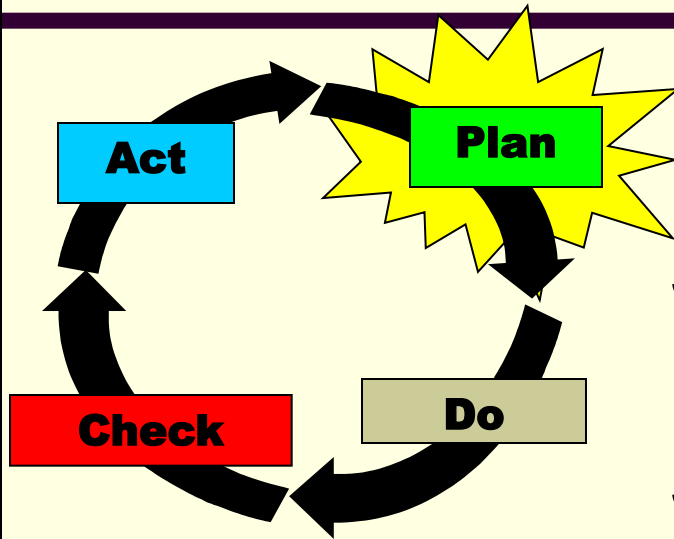
Plan   Step 3: Collect and Analyze Data
Pareto Graphs Show Frequency of Problem

Customer Complaints - Visits to Advisors

Plan
Step 4: Determine Root Causes

Act

Plan

Check

Do

Step 1 Select a process &
form a team

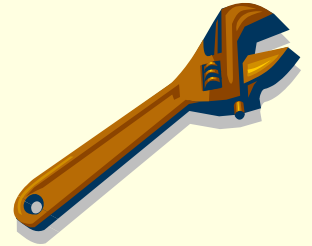**Step 2** Understand the current
process

Step 3 Collect & analyze
baseline data

Step 4 Determine root causes

Plan
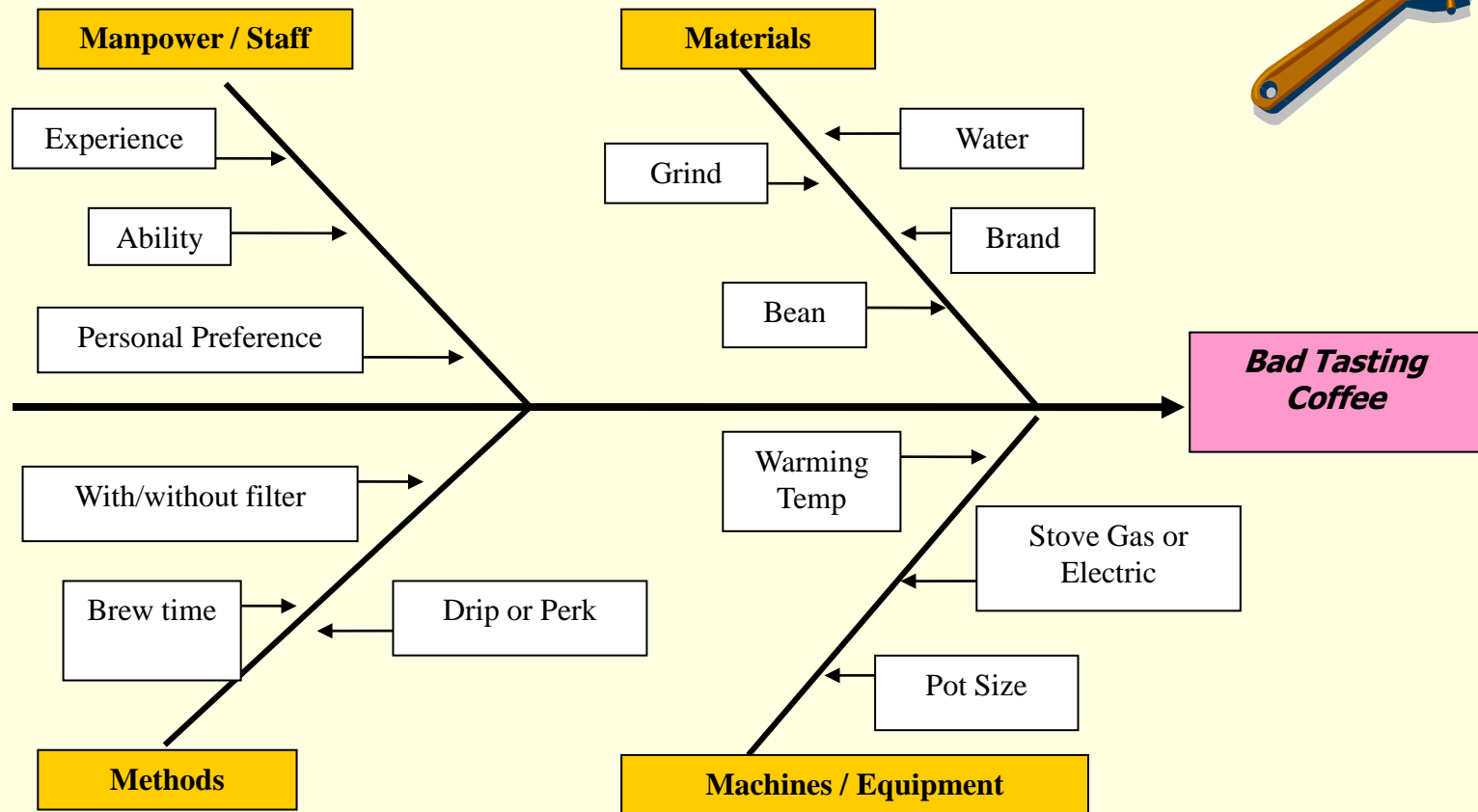**Step 4: Determine Root Causes – 5 Whys?**

Using the "5 Whys"

1. Why? *Why is this a problem?*

2. Why? *…and why is that a problem?*

3. Why? *……..and why is that a problem?*

4. Why? *………..and why is that a problem?*

5. Why? *……………and why is that a problem?*

Step 4 – Determine Root Causes - Cause and Effect Diagram

Why is this problem occurring?

Fishbone (cause and effect) diagram with the effect "Bad Tasting Coffee"

- **Manpower / Staff**
  - Experience
  - Ability
  - Personal Preference
- **Materials**
  - Water
  - Grind
  - Brand
  - Bean
- **Methods**
  - With/without filter
  - Brew time
  - Drip or Perk
- **Machines / Equipment**
  - Warming Temp
  - Stove Gas or Electric
  - Pot Size

Exercise

Determine Root Causes

Spin and Marty Case Study - 25 minutes

- Based upon your problem statement use two of the following tools to analyze the Spin and Marty data:

  - Pareto Chart

  - Cause and Effect Diagram

  - Run Chart

  - 5 Why's

Plan
Step 4: Determine Root Causes

Common Missteps

1. Collecting the wrong data to analyze a situation

2. Combining data from different sources

3. Data collectors use different procedures because there was no training in how to do the collection.

4. Inconsistent methods are used in data collection

Any others you have experienced?

Root Causes
Looking for Waste

1. Over production due to emphasis on supply rather than demand

2. Waiting (queues)

3. Over processing

4. Excess inventory

5. Unnecessary movement

6. Defects or correction due to reworking

7. Unnecessary transport

Root Causes
Looking for Waste

- Physical, risk of becoming non-compliant, health

    - *Poor work ergonomics*
    - *Meetings targets at all cost*
    - *Poor scheduling or priorities*
    - *Too many meetings reducing normal workday hours, leading to burnout*

Root Causes
Looking for Waste

- Precision: complicated and specific steps
  - ➢ Hidden knowledge,
  - ➢ Processing beyond requirements

- High skill: Excessive knowledge, skill, or experience required

Root Causes
Looking for Waste

- ■ Sensitivity: process easily broken by exceptions
  - ➢ inconsistent behavior
  - ➢ unclear ownership,
  - ➢ customer requirements unclear or not communicated, unclear who needs data & information
- ■ Variability: inconsistent and difficult to maintain
  - ➢ unpredictable results
  - ➢ undefined policies and procedures
- ■ Under utilized people: loss of potential or reduced motivation,
  - ➢ inefficient use of human capital

Source: Steelcase, Inc.

Root Causes
Stabilize – Reduce Variation – Two Types

- **Common Cause Variation**
  - Natural
  - Ever-present source of natural fluctuation

- **Special Cause Variation**
  - Unnatural
  - Due to unpredictable or intermittent events

Waste
Reduce or Eliminate Variation

- **Reduce or Eliminate Variation**
  - Is the process stable?
  - Is the process unstable?
  - Can we standardize?
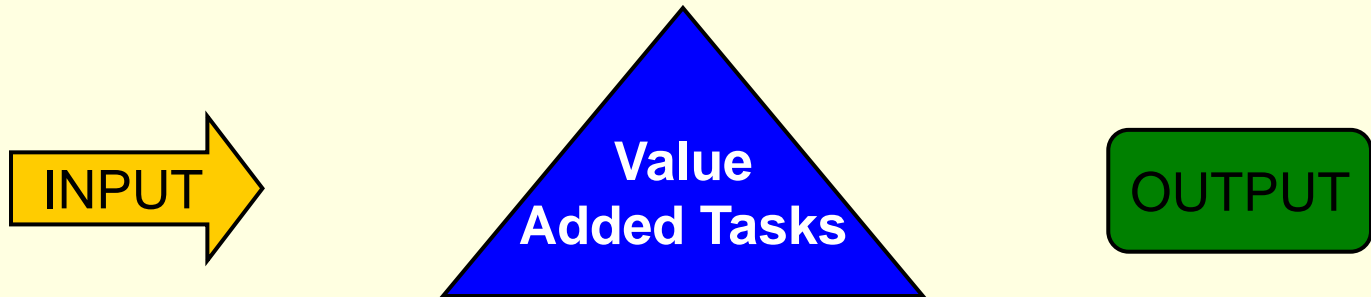 - Can we eliminate waste?

Can we eliminate waste?

Waste
Reduce Complexity

- **Simplifying to:**
  - Reduce the number of steps
  - Eliminate rework

- **Standardizing to:**
  - Ensure process consistency
  - Reduce errors

H – Pg 6

Waste
What Work Is Value Added?

INPUT → Value Added Tasks → OUTPUT

What does value mean?

1. The customer is willing to pay for this activity.

2. It must be done right the first time.

3. The action must somehow change the product or service in some manner.

Waste
What Is Value Added?

- **Value Added**
  - An activity which changes the form, fit, or function…enhancing value
  - …from the *customer's perspective*.

- **Non-Value Added = <u>Waste</u>**
  - Does not transform in any helpful way

Review / Next Steps

Review

    Run Charts, Pareto Graph

    Root Causes 5 whys, Cause & Effect

    Waste & Value Added

Next Steps

    Decision / Solution
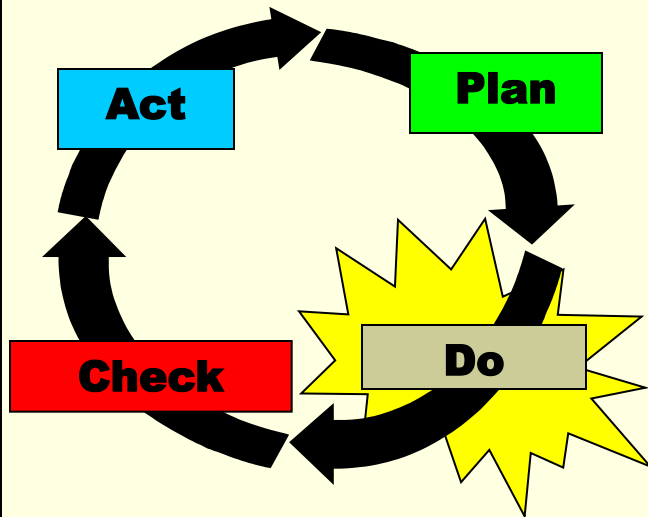
    Multi-Voting

    Green-lighting

DO: Develop and Implement Solutions!

Step 5 Generate and Select Potential Solutions

Step 6 Implement the Solutions

Do
Step 5: Generate & Select Solutions

Decision Solution Matrix

Step 1) Team identifies the important solution criteria (typically 4-7)

Step 2) Team ranks (scale 1 – 10 best) the importance of each criteria

Step 3) List the possible solutions across the top

Step 4) Team scores (scale 1 – 10) 1st solution to each criteria, then 2nd

Step 5) Analyze results and select solution with highest score

Decision Solution Matrix					
Criteria	Overall Criteria Ranking (column a)	Solution A Scores of Criteria (column b)	Solution A Score (a x b)	Solution B Score of Criteria (column c)	Solution B Score (a x c)
Impact on root cause	10	10	100	6	60
Training	6	8	48	9	54
Failure Risk	3	7	21	10	30
Total			**169**		144

Tools to help you select the best solutions..

- **<u>Multi-Voting</u>**:

  appropriate for making simpler decisions
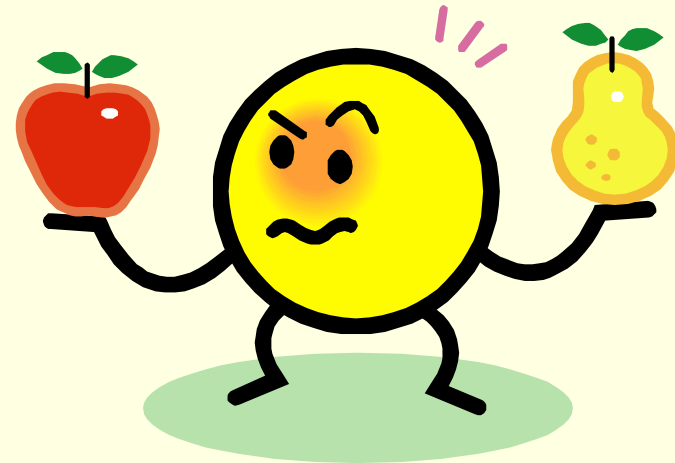
- **<u>Decision Matrix</u>**:

  For more complex decisions that involves multiple criteria

Car Buying Exercise

2009 HONDA PILOT SUV
VS.
2009 FORD FUSION HYBRID SEDAN

Using the Decision Matrix to help me decide….

Decision Solution Matrix					
Criteria	**Overall Criteria Ranking (weighted 1-10) (column a)**	**Honda score of Criteria (column b)**	**Honda Score (a x b)**	**Ford score of Criteria (column c)**	**Ford Score (a x c)**
Safety Rating	9				
Cargo Space	7				
Cost of Ownership	6				
Gas Mileage	5				
The "WOW" factor	5				

I ended up buying this one…

Review / Next Steps

Review

    Decision / Solution

    Multi-Voting

    Green-lighting

Next Steps

    Preparing report to sponsor

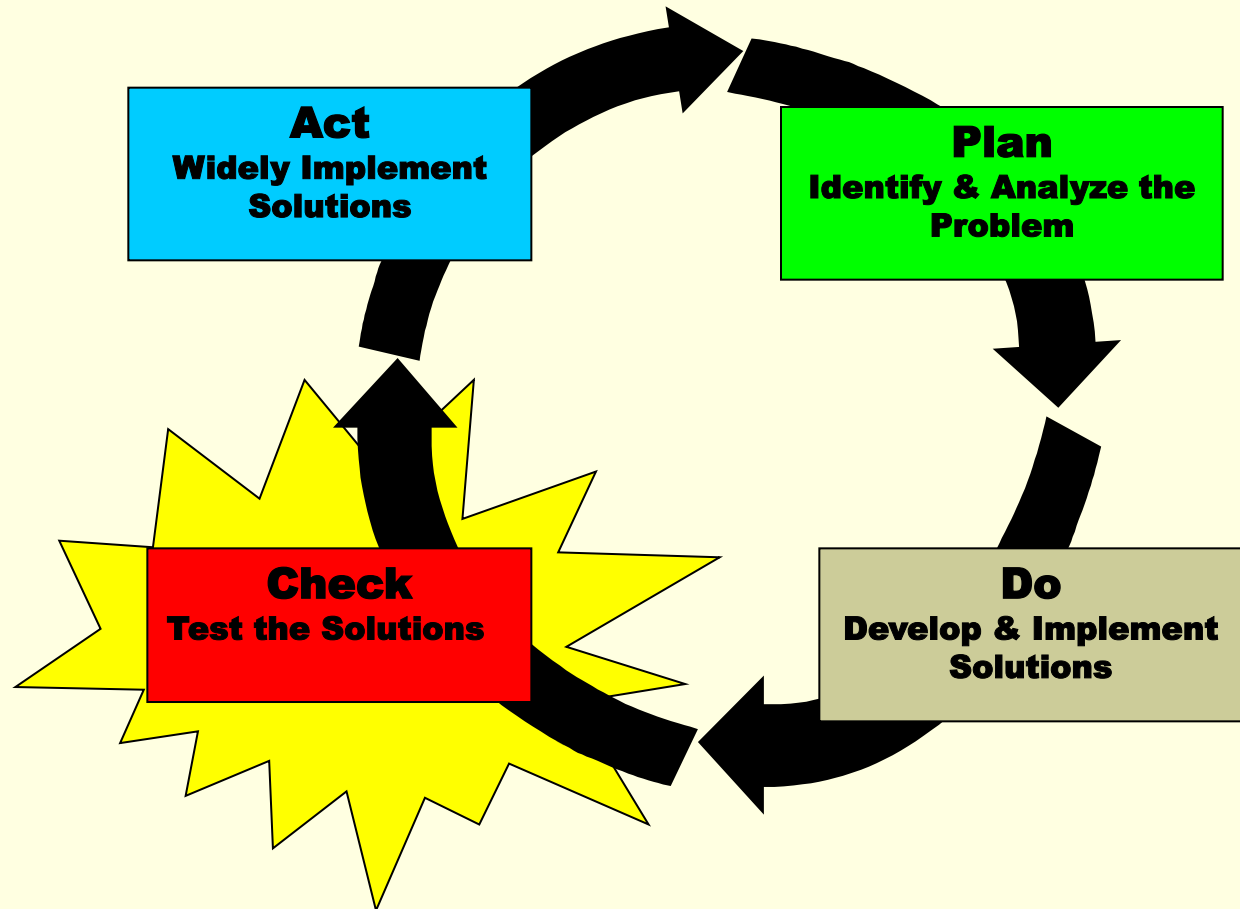   Final presentation

Exercise
Prepare a Report to Sponsors

Final Presentation Pre-view

Team Exercise:	45 minutes preparation
	15 minute break
	35 minute report out

- Finalize problem and goal statements

- Determine Process Boundaries (begin/end)

- Complete "As Is" Process Flow

- Use of one of the data analysis tools

- Identify Root Cause

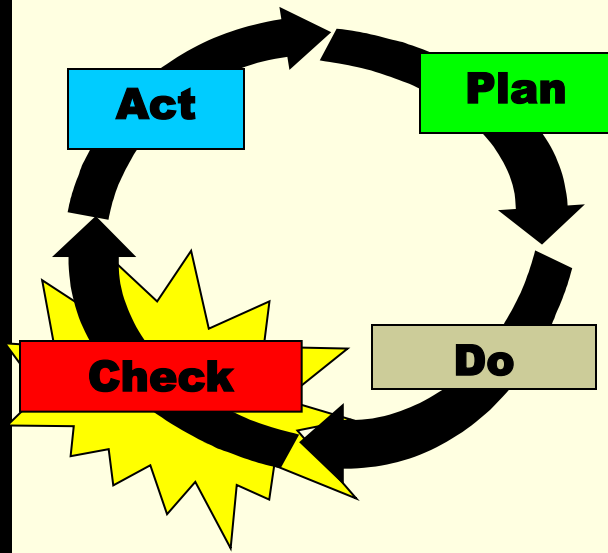- Propose Solution (show how you made the decision)

Plan - Do - Check - Act Cycle

Act
Widely Implement Solutions

Plan
Identify & Analyze the Problem

Check
Test the Solutions

Do
Develop & Implement Solutions

CHECK: Test the Solutions

Plan

Act

Check

Do

Step 7 Gather and Analyze Data on the Pilot Implementation

Check
Step 7: Evaluate Pilot Results

What did we learn?

1. Did the change in process eliminate the root cause of the problem?

2. Is the data from the process after implementation closer to the goal than before improvement?

3. Were expected results achieved?

4. If there was no change, identify why.

Check
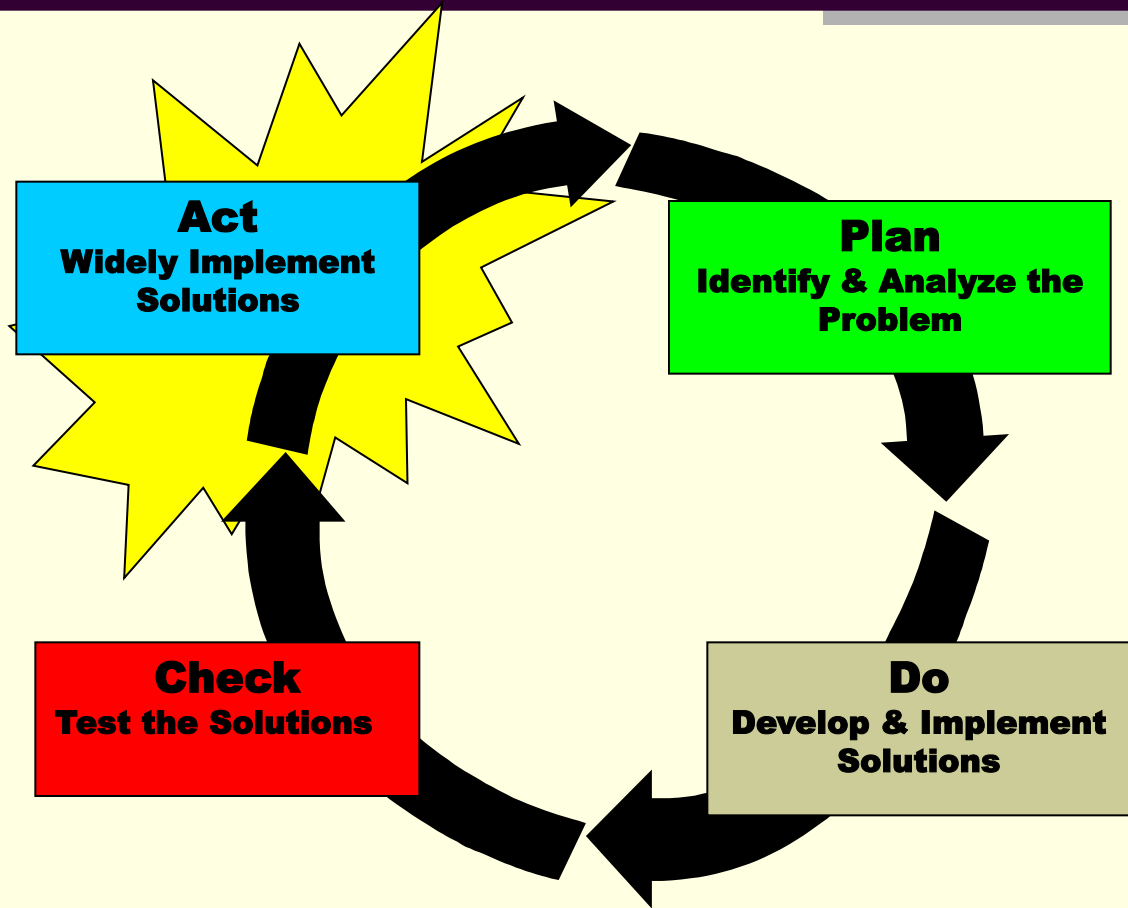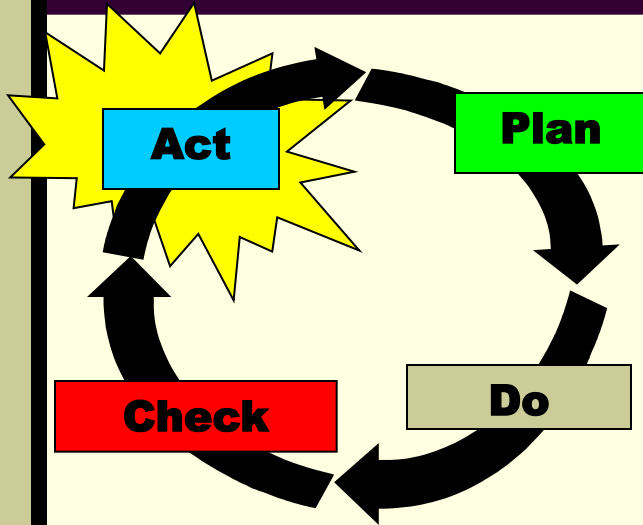## Step 8: Standardize the Solutions

Evaluate the Pilot

- Usually, things do not go completely as planned or intended during the pilot

- Assess need for changes to the solutions

  - Option 1 – Full implementation

  - Option 2 – Adjust then implement

  - Option 3 – Scrap this solution – start over

If too many problems were encountered, another pilot may be necessary

Plan - Do - Check - Act Cycle

ACT: Widely Implement Solutions

Step 8   **Standardize the Solutions**

Step 9   **Implement Widely**

Step 10   **Look for Other Opportunities**

Act

Step 9: Implement Widely

Tips for successful full-scale implementation

- Gain Sponsorship
- Appoint Project Manager
- Implementation and proceed with Communication Plan
- Revise Policies and Procedures
- Train staff and customers affected

Act
Continuous Learning in Focus

1. Can this process be further improved?

2. Can this change method be used to improve a different problem?

3. Are there other problems that the process partners can work on?

4. Can some parts of the solution be applied to other problems

5. Can this team teach the process improvement methods to others?

Act

Just Do it – *Let's Implement This!*

- Something simple and easy to change
- No cross-functional impact
- Limited cost or complexity
- Make certain that any process partners and/or customers would benefit!

Act
Just Do it – *Let's Implement This!*

- **"Together We Can Do It"** – *Cross-Functional Team*

- May be more complex or costly to implement.

- Would benefit by having customer perspective represented on the team.

- These projects are chartered, sponsored and have a team and team leader

Act
Just Do it – *Remember*

- **Always** - Communicate within the team, with your manager, and with anyone who would be impacted - before implementing a change.

- **Always** - Have a feedback mechanism so you know what kind of impact your change has made – customers in particular!

- **Never** - Sub-Optimize: Don't change something that makes your life easier but that also has a negative impact on someone else.

Closing

- Highlights
- Any questions
- Electronic survey